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SOUTHWEST CORRIDOR PROJECT NEWSLETTER



Forest Hills Residents discuss station design

CORRIDOR NEWS

no. 5

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May 1978

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Avanza diseño de estaciones

El diseño de las nuevas estaciones para la vía anaranjada está caminando a buen paso. El primer punto crítico en el diseño, cuando el MBTA apruebe el diseño esquemático, se ha logrado en tres estaciones: Back Bay, Boylston, y Green. Se espera que las cinco restantes estaciones lleguen a este punto, llamado el "Poste Millar", durante los próximos meses.

Durante la etapa de diseño esquemático, los arquitectos estudian distintas alternativas para solucionar problemas de diseño que plantea cada estación. La relación del edificio de la estación a su medio ambiente, incluyendo issues de arquitectura paisajista, se estudia en esta etapa. Después de que los SATFs discuten varias alternativas, una de éstas se selecciona y se refina.

Ya evolucionado el diseño hasta este punto, los arquitectos someten al MBTA una serie de planos, incluyendo un plano de localización, planos del edificio, y secciones verticales.

STATION DESIGN MILESTONE

The design of the new stations for the Relocated Orange Line is well underway. The first design milestone, the point where the scheme recommended by the station architect is approved by the MBTA, has been reached by three stations: Back Bay, Boylston Street and Green Street. The remaining five stations are expected to reach the schematic design milestone in the next few weeks.

During the early or "schematic" design phases architects consider alternative solutions to the problems posed by each station. The relationship of the stations to the surrounding areas, including landscape issues, are studied during this phase. The organization of spaces within each station is also studied. After the citizen's Station Area Task Force ("SATF") advises the MBTA about the best design features of each alternative, the architect "recommends" a concept plan. This recommended concept plan is again reviewed by the SATF, and sent to the MBTA. When accepted by the MBTA, the architect

completes plans showing circulation patterns, stairs and platforms. The paid and unpaid lobbies, and the support spaces are defined. Study models are used in order to elaborate the scheme.

At this point, the architects produce a set of drawings for the MBTA, including site plans, building plans and sections. Approval by the MBTA signifies the schematic milestone.

These drawings are then once again presented to the communities through the SATFs. After discussion, any changes recommended are considered and implemented during the next phase of design.

The three stations which have reached the milestone offer unique solutions to the different programs and conditions of each site. Back Bay Sta-

tion includes platforms for B&A, AMTRAK, and commuter rail, as well as for the new Orange Line. The lobby space includes facilities for all these rail services organized around a sky-lighted concourse.

Green Street and Boylston Street Stations, with only Orange Line platforms, are among the smallest in the Corridor. Green Street Station will be located with good bus connections; Boylston Street Station is integrated into the Regional Trail and faces a large open space which is part of the SW Corridor Park. The milestone schematic design for the three stations are described in more detail on pages 4 and 5 of this issue.

All stations in the Corridor are being designed with the involvement of minority owned architectural or engineering firms.



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FROM THE PROJECT MANAGER

T MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

Southwest Corridor Project
131 Caredon Street, Boston, MA 02116
(617) 722-5834 (617) 522-6071

I am delighted to report that we have just been notified by the Urban Mass Transportation Administration of the approval of the Final Environmental Impact Statement for the Southwest Corridor Project. This is truly important approval because it signifies federal acceptance of years of planning, design and participation by Corridor residents and business people. It also assures that the Southwest Corridor will provide a rail right-of-way which is not only capable of handling increased rapid transit and commuter railroad service, but that it can do so while protecting and enhancing the environment of the neighborhoods through which these services will pass.

1978 promises several other important Project advances. The implementation of the Southwest Corridor Educational Training Program is now in progress; we expect that thirty students will have useful and educational summer employment on the Project. Reconstruction of the Hillland Division, which will serve as a by-pass for rail service during Corridor construction is underway and on schedule. South Cove Tunnel construction work is well advanced, and several construction starts are also expected: the new Cross Town Street, the Cross Town Industrial Park, the Weld School Restoration and the Summer Street Elderly Housing Development.

As you will see from this issue of *Corridor News*, design on the Project's transportation elements is proceeding at a rapid rate. The Station Area Task Forces meet regularly and the sessions are both lively and productive. Please do not miss the opportunity to participate.

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SWCP Educational Training Program

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Program Goals

The goals of the program are to facilitate the entry of community residents into construction-related professions and to increase the representation of minorities and low-income people in the professions of engineering, architecture and related technical fields while encouraging program participants to acquire useful skills. Further, the program is seen as a stimulus to the local economy of the project area.

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Eligibility Requirements

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ticipants will reflect that of the Corridor population.

For more information

on the Pilot Summer Program, call Peter Calcaterra at 722-5834.



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Treinta estudiantes de escuela superior participarán en Programa Piloto de Verano. Ellos trabajarán en las oficinas de los arquitectos e ingenieros diseñando el Proyecto del Corredor del Suroeste. El programa de

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El programa que comenzará en septiembre, incluirá estudiantes de escuela superior y jóvenes que no están estudiando. Todos los participantes deberán ser residentes del corredor y tener entre 16 y 21 años. La composición étnica de los participantes reflejará la población del corredor. Para mas información sobre el Programa Piloto de Verano, llame a Peter Calcaterra, tel. 722-5834

HOW DOES A STATION GO FROM AN IDEA TO A PLACE WHERE YOU PAY A AND TAKE A TRAIN RIDE?

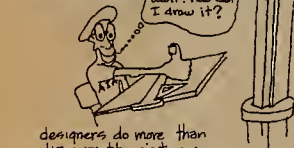


Many perceive architects as being creative dreamers who approach every design with the same artistic freedom as a sculptor; however, this is not the case. The station architects on the Southwest Corridor project are responsible for much more than the final physical beauty of their creations. Their mission or challenge is to design a neighborhood station.



It should be understood that while the design process seems logical and straight forward on paper, many times it doesn't follow a precise, logical path. Some issues are resolved much sooner than others, consequently, decisions about that aspect of the design can be made sooner. Also, some issues won't be resolved when the architects anticipate they should. Complicated issues require more studying and analysis before the architect can exclude certain options and develop, in detail, that part of the design.

ARCHITECTS MUST KNOW THE NEIGHBORHOODS AND ISSUES AROUND EACH STATION



designers do more than draw pretty pictures

1 STATION PROGRAM

PREPARE A DESCRIPTION OF THE NUMBER OF PEOPLE AND ACTIVITIES THE STATION SHOULD HOUSE AND HOW PARTS OF THE STATION SHOULD WORK TOGETHER AND RELATE TO THE SURROUNDINGS / A STATEMENT OF THE PROBLEM

Since transit stations offer an ideal opportunity for different types of development, architects must consider the potential for new development and its impact on surrounding neighborhoods. To insure that new development complements and reinforces the community architects must formulate physical goals for the station area even though this development will probably take place years after the station is built. However, in many cases, proposed developments will not be built due to economic forces. All of these considerations make up the "big picture" around a particular station site; these concerns are described in the urban design criteria for each station.

After the urban design issues and goals are understood, it is easier for the station architects to identify site specific concerns that will affect the design of the station. The next step is to formulate the station program which defines the functional requirements and criteria for the station. The program is simply a written explanation of station goals and objectives.

THE STATION PROGRAM INCLUDES INFORMATION ABOUT THE SITE

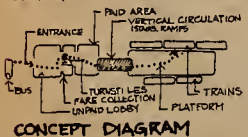


THE NUMBER OF PEOPLE, BUSES, TRAINS, CARS, ETC.

SPACE NEEDED

- TO ACCOMMODATE DIFFERENT ACTIVITIES
- o SITE EXTERIOR _____ sq. ft.
 - o LOBBY _____ sq. ft.
 - o PUBLIC FACILITIES _____ sq. ft.
 - o EMPLOYEE FACILITIES _____ sq. ft.
 - o SUPPORT SPACE _____ sq. ft.
 - o VERTICAL CIRCULATION _____ sq. ft.
 - o PLATFORM _____ sq. ft.
 - o BUS AREA _____ sq. ft.

THE DESIRED RELATIONSHIP OF PARTS OF THE STATION



CONCEPT DIAGRAM

GOALS

- o ENSURE SAFE ACCESS THROUGHOUT THE FACILITY ETC.

CRITERIA

- o LOCATE ENTRANCES AND EXITS ON PUBLIC STREETS
- o ENSURE MAXIMUM VISIBILITY FROM THE STREET AND FROM CENTRAL AREAS
- o PROVIDE ADEQUATE LIGHTING AND UNOBSTRUCTED VIEWS

OTHER EXAMPLES OF CRITERIA THAT DEAL WITH QUALITY OF A PLACE ARE:

1. FORM - LIMIT BUILDING HEIGHTS - ARCHITECTURAL STYLE MUST BE CONSISTENT WITH THE TREATMENT OF BUILDINGS IN AREA
2. FUNCTION - LIMIT ACCESS TO CERTAIN AREAS - ENCOURAGE USES THAT LIMIT NOISE TO ADJACENT AREAS

FIXED CRITERIA

THE CRITERIA FOR DESIGNING AREAS THAT ARE CLOSEST TO THE TRAIN PLATFORM ARE FIXED: THE PLATFORM MUST BE A CERTAIN SIZE, THE CRITERIA FOR TRAINS, EMERGENCY EXITS, VENTILATION AND NOISE STANDARDS ETC.

STATION RECIPE

- o 2 ENTRANCES
- o 1 PLATFORM
- o 10 TURNSTILES
- o 1 COLLECTION BOOTHS

Direct functional requirements are easy to state and test. For example: provide parking for 500 cars; provide waiting space for 8 buses; allow for 100 people/hour entering the station at peak hours.

On the other hand, design objectives that deal with the quality of a place are not as straightforward. It's not uncommon for people to say that they want the new transit system to maintain the residential quality of their street. This is definitely not specific, it is difficult to determine what it really means in physical terms. Residential quality means different things to different people. To residents living in Section I maintaining residential quality might mean preserving the historical and architectural character of the neighborhood. In Section II the same goal means something different, since the issue in many housing projects is not to maintain residential quality, but to upgrade it.

It is therefore one task of the SATF's to clarify the design objectives and to make specific recommendations to the designers.

Design objectives that deal with the quality of a place should be as specific as possible without fixing the final physical form. Often, the best form for defining these objectives is one that specifies the human activity desired along with its desired physical character (size, shape, style) relative to existing buildings.

FOR EXAMPLE
a walk way that provides weather protection, access from all points and no more than an average delay of four seconds)

On the Southwest Corridor Project the Design Criteria Manuals summarize the regulations, guidelines, and, in many cases, value judgments (decisions about quality of a place) that will guide the design; it projects the number of people, cars and buses using the station as well as space requirements and functional relationships that are necessary to accommodate safe and efficient T operations.

2 SCHEMATIC DESIGN

BASED UPON THE STATION PROGRAM, DRAWINGS ARE DONE THAT SHOW DIFFERENT WAYS TO ADDRESS ISSUES AT THAT SITE / PHYSICAL RESPONSES TO THE PROBLEM STATEMENT

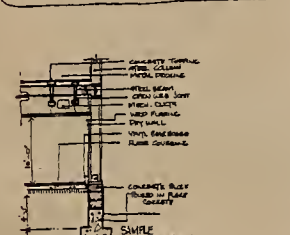
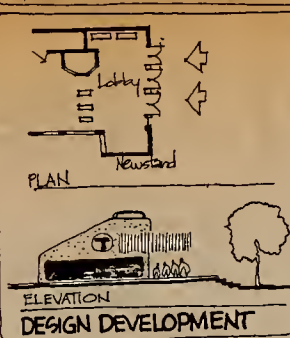
The next phase is the schematic design phase. After the design criteria have been established, the architects use this as the "instruction manual" for exploring different ways to approach the design of a station; the MBTA upon advice from the SATF will decide which alternative is the best. During this phase the architects take their "first stab" at locating the station and exploring different design possibilities.

3 DESIGN DEVELOPMENT

AFTER MAJOR DECISIONS ABOUT THE NATURE OF THE DESIGN HAVE BEEN MADE, ARCHITECTS CAN BEGIN FINALIZING HOW THE EXTERIOR AND INTERIOR WILL LOOK

After the various design alternatives have been narrowed down to one or two options, the architects can begin the design development phase. During this phase the architects will take the design a step further and begin to make the "nuts and bolts" decisions that will determine the final character of the station materials, window details, landscaping, lighting, color, textures, and art work are just a few of the things that must be considered.

4 CONSTRUCTION DOCUMENT PHASE EXPLAINS HOW TO BUILD THE STATION



AFTER A CERTAIN POINT IN THE DESIGN PROCESS, MAJOR CHANGES IN THE CRITERIA COULD DRASTICALLY CHANGE THE NATURE OF THE DESIGN.

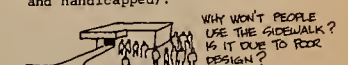


What is the community's role in this process?

This is how a station goes from an idea to a place where you put in a quarter and take a train ride. What exactly is the role of community residents throughout this process?

The most important responsibility of community residents is to help formulate and evaluate the criteria for designing the station and the area around it. This is very important since these are the guidelines or "instruction manuals" that the architects are constantly referring to throughout the design process. Basic mistakes about priority issues when establishing the design criteria could result in poor designs

(e.g. bad locations for entrances, security problems, traffic/pedestrian conflicts, outdoor spaces that are not used, psychological and physical barriers for elderly and handicapped).



In some ways the criteria for a design are similar to the foundation of a building. If the foundation is shifted after a building is constructed, this will have side effects in the building's structure (e.g. cracks in walls). Likewise, if the most important criteria are changed after the architect begins design development (for the station or the area around it), it could drastically change the plans that were generated in prior phases of the process. This is why it is important that residents review and recommend changes in the criteria because they will be more difficult to change during later phases of the design process.

DEADLINES & SCHEDULES MUST BE MET IF THE PROJECT IS EVER GOING TO BE PAID WITHIN THE BUDGET

After the criteria are established, the community residents are like a review panel which helps evaluate the appropriateness of design alternatives or how successfully the design fulfills the criteria. Architects will communicate their ideas about how the station should look and operate by presenting drawings and working models of the station area.

FROM THE PROJECT MANAGER



**MASSACHUSETTS
BAY
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left: The Green Street Station Area, showing the site of the new station, the existing embankment, and the existing Orange line elevated in the background.

Schematic milestone design: Green Street

The Green Street Station will be positioned with major emphasis placed on Green Street for its entrance or arrival point. The bus drop-off areas, visible from the station's unpaid lobby, will be located on Woolsey Square, Amory Street Extension, and Green Street, allowing flexibility for vehicular approach from the surrounding neighborhoods.

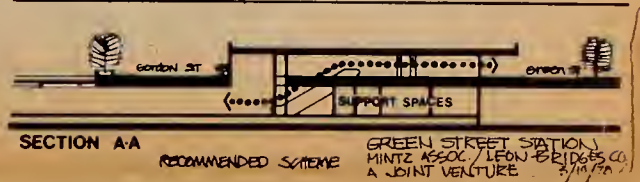
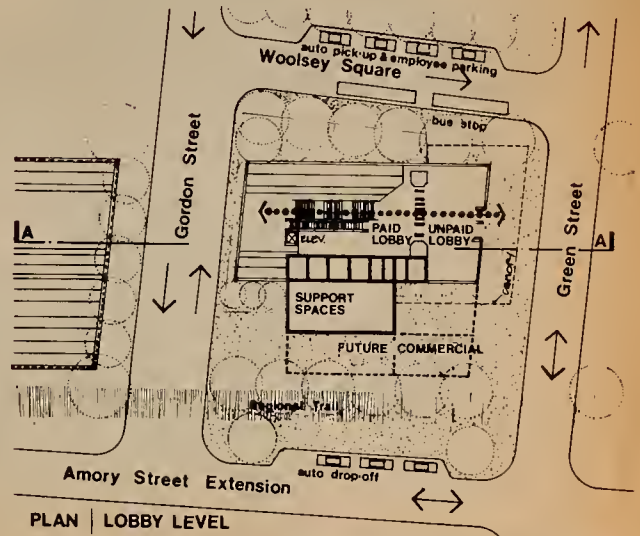
Two sets of doors are located on either side of the unpaid lobby in direct relation to the bus loading area and the pedestrian approach on Green Street. Potential commercial space will have a separate entrance as well as access directly from the unpaid lobby. The shape and location of the different elements of the station are determined by the effort to provide maximum surveillance; the fare collector's booth will have visual control over most of the public areas, interior as well as exterior. This, in turn, locates the bus/auto waiting area and commercial space near the unpaid lobby and puts the com-

bined support spaces on the east side of the paid lobby. Vertical circulation via stairs, escalator, and elevator separates the paid lobby from the platform at track level.

The Corridor Parkland concept will be incorporated into the design of the station site in order to provide a proper setting for the building. The building massing will be kept simple, yet sympathetic to the scale and character of the architecture in the surrounding neighborhoods located to the east and west of the station.

Resumen en español

Esta estación estará localizada en un sitio rodeado por calles, con el énfasis principal dirigido hacia la calle Green, donde está la entrada. Habrán áreas donde los automóviles pueden dejar pasajeros en tres calles--Amory, Green y Woolsey-- permitiendo flexibilidad al llegar a la estación en carro desde los vecindarios que la rodean.



Habrán dos pares de puertas a cada lado del vestíbulo. Una se dirigirá al área de espera de autobuses, la otra hacia la entrada de peatones en la calle Green. El espacio comercial futuro tendrá acceso tanto desde afuera como desde el vestíbulo.

La forma y colocación de los distintos elementos de la estación los determinará principalmente la necesidad de mantener vigilancia. Así, la caseta para coleccionar la tarifa tendrá control visual de las áreas públicas, tanto internas como externas.

Prospect for Development

The emphasis of the Phase IIA development analysis, conducted by the firm of Charles G. Hilgenhurst & Assoc., has been to lay the groundwork for specific recommendations on parcel development by the Station Area Task Forces during the Project Design.

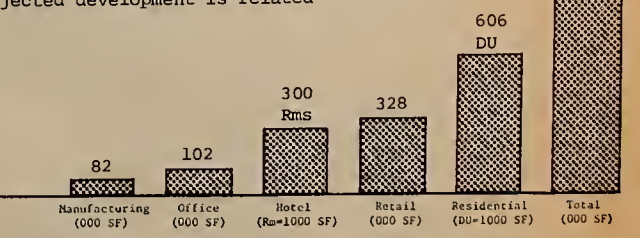
Thus far, this work has focused on the "feasibility" of various types of development for each parcel in the Corridor. The focus of the work will soon shift toward type and scale of development that is desirable for each parcel and its implementation.

Projected development in each section has begun to take on increasingly

distinct characteristics. Section I prospects focus on a few relatively small parcels--reflecting the denseness of the existing urban fabric and the interest of non-SWCP developers in the few existing large sites in the vicinity of the Corridor, where the net impact of SWCP-related development on Section I neighborhoods will, therefore, be minor. Section II prospects focus on several major parcels capable of accommodating large scale development in an area that has suffered from significant disinvestment since 1950. These projects have the potential to improve the physical character of the area, providing a wide

range of amenities including new and diversified retail activity, new community facilities, and an improved housing stock. SWCP development also has the potential for strong positive impact on Section III, where most of the projected development is related

to restoring the neighborhood's residential and commercial fabric through a series of small neighborhood-scale projects.



Corridor-wide Total Square Feet SWCP Development by Land Use: Preliminary Findings

Section A a vertical "slice" through a building. See Green Street scheme above.

SECTION I:

PROFILE AND ALIGNMENT FIXED

Establishment of Section I's profile and alignment was the happy ending to a long story about the problem of how to effectively control noise and vibration and to physically protect adjacent homes in the South End and St. Botolph neighborhoods. It is also the beginning of what promises to be the exciting planning process of determining what to do with the long and narrow covered area over the tracks between Dartmouth St. and Mass. Avenue.

The story began during the Environmental Impact Study phase of the Southwest Corridor Project. Residents requested noise and vibration protection for their neighborhoods, which are virtually inches away from the train tracks. Initial solutions consisted of only vertical brick walls to which were later added an intermittent cover. Eventually, the concept of a partially-depressed but completely covered design evolved. It provided protection to structures during construction and during train and transit operation, provided effective noise and

vibration control, permitted light to first story windows and visually conformed to the scale of adjacent homes since the wall height was limited to 8 feet.

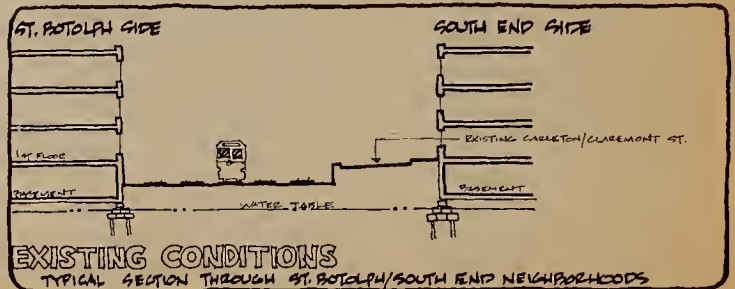
It was Kaiser Engineers/Fay, Spofford & Thorndike's mission to turn this EIS concept into a concrete engineering reality. The physical dimensions were difficult constraints to meet. There is housing on the St. Botolph side; Claremont and Carleton Streets and existing parks on the South End side; a high water table below; and an 8 foot wall height limitation above. An engineering solution respecting all these limitations required real skill. The path to that goal is summarized in this page.

The engineers were pleased to present their solution on February 23 at the Harriet Tubman House. It effectively uses what little space is available while protecting the built environment. The Neighborhood Committee, MBTA and consultants exchanged questions and answers on technical and

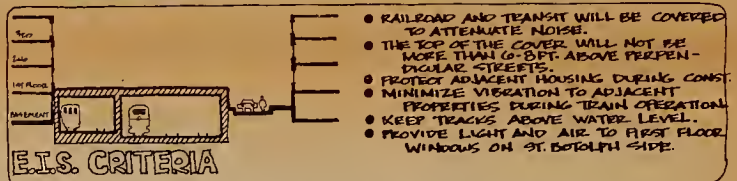
social problems from water drainage to crime. The meeting concluded with participants in full agreement with the proposed solution. When someone mentioned his satisfaction with the evening's presentation and offered congratulations to the MBTA and consultants, there was applause.

The next step is to

determine the programming of activities and/or landscaping for the covered area. The Neighborhood Committee/Cover Task Force meeting on Monday, March 6th, discussed the process to be undertaken and some preliminary design treatments for various elements, such as limited access, and the transfer of land to immediate abutters.



FACTORS INFLUENCING THE PROFILE & ALIGNMENT IN SECTION I



En la sección I: Cambian la ruta y el perfil

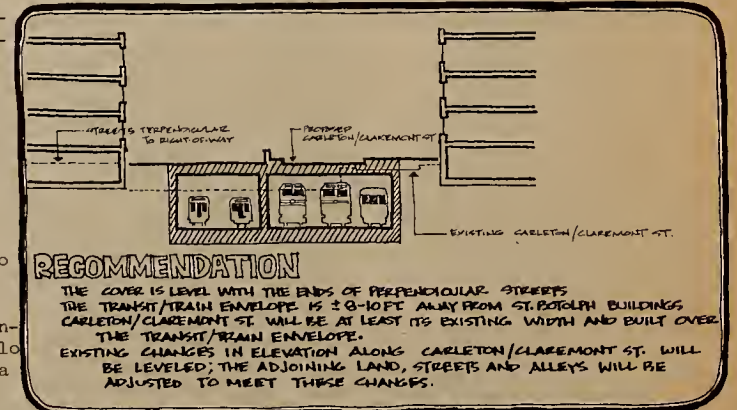
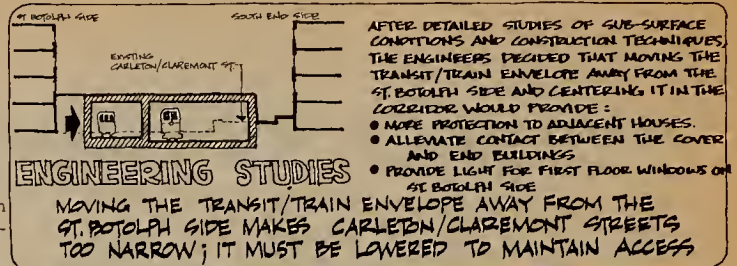
La selección final del perfil y la ruta de la vía del tren en la Sección I ha sido el logro de una larga historia de como diseñar una facilidad que controle el ruido y la vibración y que proteja los edificios adyacentes a la vía del tren. Es también el comienzo de un proceso de planificación que ayudará a decidir lo que se construirá sobre la vía que separa los vecindarios del South End y St. Botolph.

Durante el período del Estudio de Impacto Ambiental los vecinos del área pidieron un diseño que los protegiera del ruido. El diseño inicial consistía de paredes de ladrillo con una cubierta en ciertas áreas. El diseño evolucionó hasta llegar a ser

una vía semi-hundida con una cubierta total.

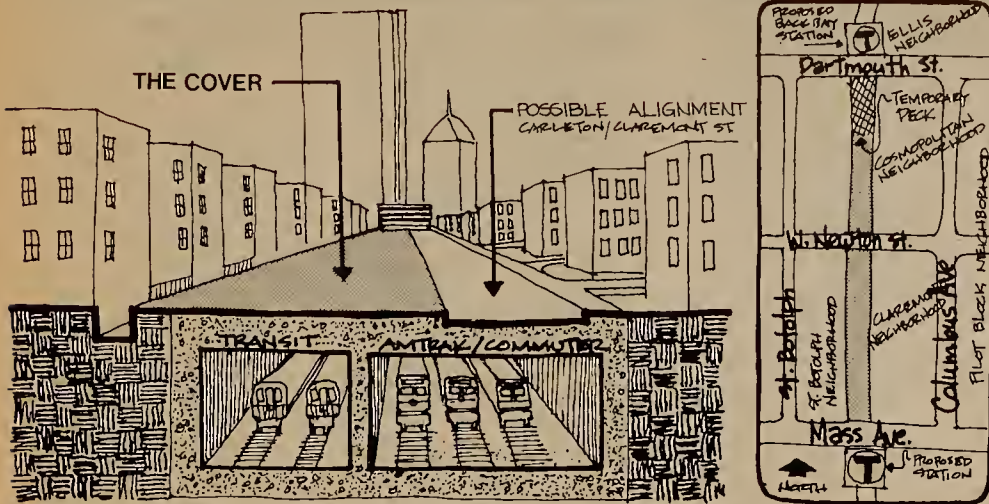
Eventualmente se decidió separar la vía del tren de los edificios del vecindario de St. Botolph. A su vez este diseño eliminaba la calle Carleton/Claremont. Los ingenieros decidieron entonces bajar aún más el nivel de la vía y llegar al diseño final. El proceso, ilustrado en los dibujos que aparecen en esta página, incluyó el estudio de problemas técnicos como la mesa de agua subterránea.

Los vecinos han quedado satisfechos de las decisiones hechas hasta ahora. De ahora en adelante se concentrarán en el diseño de lo que habrá sobre la cubierta de la vía.





Above: examples of the landscape design elements which can be combined on the Cover.



THE COVER WILL EXTEND FROM MASS. AVE. TO YARMOUTH ST. WITH A TEMPORARY COVER TO DARTMOUTH STREET

The South End and St. Botolph neighborhoods participating in the Section I Cover Task Force have provided the consultants with their preferences on a number of functional and design issues, including questions of access, kind of use, and intensity of use. Recently, in the March and April Task Force meetings, a series of design treatment options represented by perspective sketches and 3-dimensional models were reviewed by Task Force participants. The design treatment options, several of which are shown on this page, may be considered as "building blocks" which can be inserted into or removed from alternate locations in the cover design. They are also discrete and simple in concept, so that their characteristics may be easily discussed and modified in the course of community-consultant shirt-sleeve work sessions. The treatment options are designed to express preferences articulated by Task Force participants in earlier sessions.

Presently, the consultants are working together with the Cover Task Force

on piecing together acceptable treatment options, alignments for Carleton and Claremont Streets, and suitable connections between the cover and the principal cross-streets, Mass. Ave. and West Newton Street.

There have been three overriding principles in the drafting of treatment options, access alternatives, and the overall emerging cover design concept: 1) to ensure that the cover landscape does not encourage violation of privacy in either adjacent neighborhood, 2) to ensure that the cover design

possesses "strength of quality" and ease of maintenance to maximize future successful management by the designated park agency, and 3) to maximize visual communication between the neighborhoods and the cover to eliminate "blind areas".

Thus a cover landscape which would be separated (e.g., by a grill fence, low wall, or both) from buildings on both sides would help to respect privacy. Screen plantings (but not so dense as to block view onto the cover) would help as well. See sketches above.



Model of typical St. Botolph St. end design option.

A cover landscape which is continuous, rather than broken up into small areas (by streets, for example) is much easier to maintain with mowing and other equipment.

Abuse of the cover parkland and neighborhood street-ends can also be discouraged by designing access points to limit wild running, but yet allow normal walking and general access. Some design options that could accomplish this are shown above.

At present the consultants are developing composite plan drawings and additional model inserts for presentation at the May Cover Task Force, to aid in the selection of treatment options and other design problems.

Resumen en español

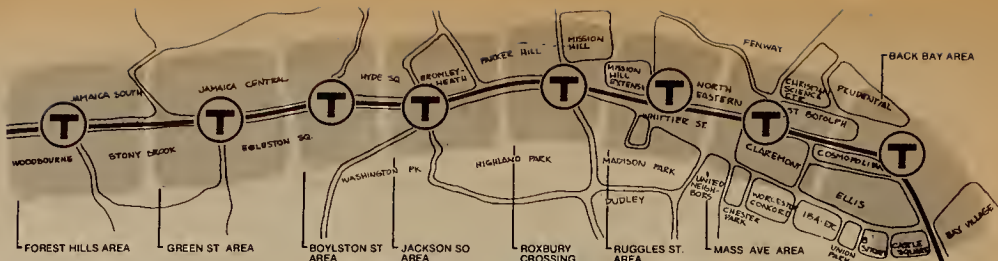
Los vecindarios del South End y St. Botolph le han expresado a los arquitectos paisajistas sus preferencias sobre una serie de issues en el diseño de la cubierta de la vía para la sección I. Durante las reuniones de marzo y abril del comité para diseñar la cubierta, los vecinos discutieron una serie de esquemas para partes de la cubierta. Algunos de estos esquemas están reproducidos en esta página.

Estos esquemas se pueden utilizar en diferentes combinaciones y lugares de la cubierta. Conceptualmente sencillos, también se pueden modificar en el curso de discusiones entre los arquitectos paisajistas y miembros de la comunidad.

En este momento se le presta atención especial a las tareas de agrupar esquemas aceptables, a trazar el curso de las calles Carleton y Claremont y a diseñar los cruces de la cubierta con las calles principales del vecindario: la avenida Massachusetts y la calle W. Newton.

Cover Task Force: A subcommittee of the Section I neighborhood studying the design of the cover.

SATF REPORTS



Back Bay

During the last few months the main focus of the Back Bay SATF has been the design of the new station and noise control measures in the area adjacent to the Ellis Neighborhood, where the platforms for AMTRAK, commuter rail and Orange Line train will be located.

Back Bay Station is one of three stations which have reached the schematic design milestone. Page 4 of this issue contains a description of the proposed design for the station along with plans for the platform and lobby levels.

The problem of noise control has also received considerable attention from the community and the MBTA consultants. A description of the experiments conducted by Bolt, Beranek and Newman using an acoustic model is described in detail on page 10. These experiments have allowed the SATF and the architects to select one option for the design of the platform canopies. This option is also being refined further for better noise control and its architectural aspects are being elaborated upon by the architects.

Mass. Ave.

At the March 8 and April 3 Mass. Ave. SATF meetings, residents discussed the design, security and traffic implications of an underpass located under Mass. Ave. providing access to the future station.

At the March 8 meeting, residents raised numerous questions about the security of an underpass and the traffic implications of an at-grade crossing. They felt that in order to make a definitive recommendation to the MBTA, they needed more information; this was requested and forthcoming at the following meeting.

At the April 3 meeting, traffic engineers presented their analysis of potential traffic impacts if a pedestrian light were located at the crest of the Mass. Ave. bridge. They stated that Mass. Ave. traffic headed towards Cambridge would be backed up through the pedestrian crossing.

WFEM, the station architects, explained how the design could be secure and interesting. Their design lines up the MBTA's collector's booth with the underpass to provide surveillance. (See drawing below.)

Ruggles St.

Since November 1977, the Ruggles St. SATF has discussed numerous issues and made recommendations to the consultants.

Residents want the design for the deck adjacent to the Mission Hill housing development to facilitate surveillance. More important, however, is the need for a shopping area accessible to project residents. In particular, there is a clear need for a supermarket and a laundromat. It was decided that the Ruggles St. SATF will meet jointly with the Parcel 18 Task Force in the future so that development issues can be studied carefully.



Pedestrian overpasses have been another topic of discussion. The consultants made a presentation to the SATF of overpasses and underpasses throughout Boston.

The schematic design of the station has also been reviewed by the SATF.

Among other subjects discussed have been the following: construction inconvenience, noise generated at the station, bus and traffic circulation, and the possibility of concession stands run by community residents within the station.

Roxbury Crossing

The topics receiving most attention from the Roxbury Crossing SATF during the past few months have been development, parkland design, the Terrace Street industrial area, bus routes, Roxbury Community College, and the effects of construction on the neighborhood.

The SATF has reviewed the development potential of the parcels within the station area (numbered 22 through 27b).

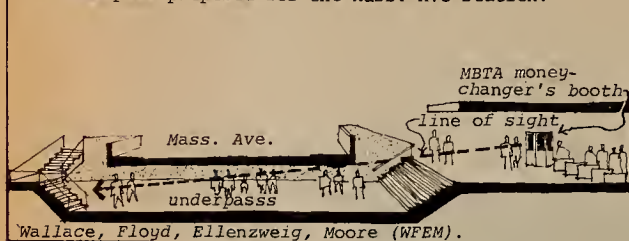
Regarding the decks and parkland, the SATF has been concerned about the availability of funds to build them, the continuity of bike paths, and lighting.

The Terrace Street industrial area is outside of the land area acquired for the Southwest Corridor, but it is an important source of jobs in light industry related to the Southwest Corridor, and care must be taken to protect Terrace St. shops. The boundaries of Roxbury Community College and its relation to the new station were also discussed.

There was discussion of changed bus routes once the new Orange Line is functioning. Residents were assured that the Tremont St. bus will continue to operate.

The impact of construction on the neighborhood is a source of concern to the SATF. The consultants reported that a full length hard surfaced detour for Columbus Ave. may be built. It is not anticipated that much traffic will switch to local streets to avoid the detours.

The underpass proposed for the Mass. Ave. Station.



Wallace, Floyd, Ellenzweig, Moore (WFEM).

en español

Durante los últimos meses, el enfoque principal del comité del área de la estación de Back Bay ("Back Bay SATF") ha sido el diseño de la nueva estación y el control del ruido en el área de las plataformas de espera para los trenes de Amtrak, de Viajeros Diarios y de la línea anaranjada. Las plataformas quedan al lado del vecindario Ellis.

en español

Las dos últimas reuniones del SATF de esta estación han discutido el diseño de la estación, la seguridad, el tráfico y la posibilidad de un túnel de peatones para cruzar la avenida Massachusetts.

Los arquitectos de WFEM presentaron ideas para que el túnel fuera un lugar seguro e interesante. El SATF recomendó que el programa de la estación incluyera un túnel.

en español

Entre los temas más discutidos por el SATF de Ruggles están: El diseño de la cubierta junto a Mission Hill, la necesidad de un supermercado y una lavandería en la parcela 18, puentes de peatones y el diseño de la estación.

en español

Los temas que más atención han recibido en Roxbury Crossing son: el desarrollo comercial, el diseño de los parques, el área industrial de la calle Terrace, rutas de guaguas, Roxbury Community College, el efecto de la construcción sobre el vecindario, y otros.

community calendar

may
june

| | | | | | | |
|----|----|----|----|----|----|----|
| s | m | t | w | th | f | s |
| 21 | ★ | 23 | ★ | 25 | 26 | 27 |
| 28 | 29 | ★ | 1 | ★ | 2 | 3 |
| 4 | ★ | 6 | 7 | ★ | 9 | 10 |
| 11 | ★ | 13 | ★ | ★ | 16 | 17 |
| 18 | 19 | 20 | ★ | ★ | 23 | 24 |
| 25 | 26 | 27 | 28 | ★ | 30 | 1 |

| | |
|---------|--|
| May 22 | Roxbury Crossing SATF meeting |
| May 24 | Parcel 18 Task Force meeting |
| May 30 | Boylston SATF meeting |
| May 31 | Jackson Sq. SATF meeting |
| June | Forest Hills SATF meeting |
| June 5 | Mission Hill Deck meeting |
| June 8 | Roxbury Crossing SATF meeting |
| June 12 | Hispanic meeting |
| June 14 | Green & Boylston Decks meeting |
| June 15 | Mass. Avenue SATF meeting |
| June 21 | Section III milestone meeting |
| June 22 | Joint meeting of Mass. Avenue SATF & Section I Cover Committee |
| June 29 | Jackson Sq. Deck meeting |

Call your section planner for place, time and agenda of meetings.

| SECTION PLANNERS | |
|------------------|--|
| Section I | Janet Hunkel tel. 523-8300 |
| Section II | Dee Prim tel. 723-1700 |
| Section III | Don Grinberg Regla Coleman tel. 267-6710 |

Jackson Sq.

One of the major topics discussed by the Jackson Square SATF over the last few months has been the location of the new station. The SATF approved the selection of the site north of Centre Street and east of the Bromley/Heath Housing project for several reasons. Bromley/Heath residents and Roxbury Community College students will have good access to the new station. This location also frees the land south of Centre St., known as Parcel 71, for use by the City's Department of Public Works. The land currently occupied by the DPW yard east of Columbus Avenue will then be available for Roxbury Community College. The SATF has approved this trade-off.

Other factors will be addressed by the SATF: Safety for children living near the tracks will have to be insured; parking for residents of #10 and #52 Lamartine Street; the design of the deck over the tracks must meet the needs of Bromley/Heath residents, including children, teenagers, and older people.

Other subjects addressed have been bus routes, maintenance of green space, controls on development outside the taking line, design for the Arterial Street, commuter parking, and the creation of jobs in light industry.

en español

La localización de la nueva estación de tránsito al norte de la calle Centre ha sido el punto más discutido en este SATF. Además, se ha hablado de la seguridad de los niños, el estacionamiento, las rutas de guagua y otros temas.

Nueva planificadora

Regla Coleman comenzó a trabajar para la firma de Howard Needles Tammen and Bergendoff, los diseñadores de la sección III. Desde que se mudó a los Estados Unidos desde la Habana, Cuba, Regla ha estado viviendo en Jama-

Boylston St.

Since the beginning of 1978, the Boylston Street Station Area Task Force has met on a monthly basis to consider various issues in the early phases of design of the Corridor Project. During these meetings, the SATF advised the consultants that security, maintenance and supervision were major concerns for the proposed open space. The community has expressed the desire that only a moderate amount of commercial space should be developed in the station area, including a small retail space within the station itself. Among the design decisions made with the concurrence of the SATF, are the realignment of



Joint meeting of Boylston and Green SATFs

Boylston St. slightly to the south, the simplification of the Boylston St./Lamartine St. intersection, and most significantly, the lowering of the track profile approximately five feet from the level shown in the E.I.S. The SATF, after viewing Kubitz & Pepi's initial architectural presentation of alternatives for station organization on February 1, subsequently concurred with the architects' Recommended Concept Plan for the station presented on March 6. In a joint meeting on January 16, the Boylston Street and Green Street SATFs reached the conclusion that the deck at Minton Street as proposed in the EIS should be divided.

ica Plain y ha estado activa en organizaciones comunales. Antes de unirse a HNTB, Regla trabajó en la Oficina Hispana, una agencia de servicios Sociales afiliada al Comité de Acción Social Ecuménico, (ESAC). Además de sus deberes como consejera vocacional, ella ha ayudado a los hispanos

Green St.

Since the last issue of Corridor News, Green St. SATF meetings have concentrated on schematic design of the station, development feasibility near the station, and (with the Boylston St. SATF) on the design and location of the Minton St. Deck. The Recommended Concept Plan developed by the architect reflects the community's desire that the station reinforce Green St. and be easily accessible from the east and west. In addition, the SATF has recommended that a moderate amount of commercial development would be desirable in the immediate station area, and the station is now designed to accommodate retail space.

In addition to security, accessibility, and climate control on the platform level, the Green St. SATF has also been particularly concerned about vehicular traffic in the station area. In their review of development feasibility on a parcel-by-parcel basis, the members of the SATF advocated the feasibility and desirability of small, sympathetically-scaled, housing development on certain available parcels of land.

en español

Se discutió el diseño de la estación, poniendo énfasis sobre el acceso a ésta, la factibilidad del desarrollo comercial, y la cubierta sobre la vía frente a la calle Minton.

del área a conseguir un mejor entendimiento de la comunidad, de sus recursos y de como utilizarlos. Sus responsabilidades en el Proyecto de Corredor incluyen ponerse en contacto con los hispanos de la Sección III para que la MBTA y sus asesores den consideración a sus preocupaciones.

Forest Hills

The Forest Hills Station Area Task Force has focused on design goals for the new station and its site context during its first four meetings in 1978. At the January 12 meeting on circulation, parking and land use, the residents indicated their opposition to potential expansion of the 500-car garage to accommodate 1500 cars. There is general agreement that Hyde Park Avenue should be a local street and that new Washington St. serve the majority of bus and automobile traffic. The community believes that while some new commercial space is needed in the Forest Hills area it should reinforce and not undermine the existing retail shops along Hyde Park Avenue.

At the SATF meetings on February 2 and March 9, Cambridge Seven/Robert L. Wilson, architects, presented a number of schemes showing alternative organization for the station functions. Forest Hills residents desire that the impact of the Green Line be minimized on Hyde Park Avenue and that the garage portion of the complex be buffered or screened as much as possible.

At the informal "architects open house" held on April 6, the community had the opportunity to become further acquainted with the design work in progress.

en español

Durante las cuatro primeras reuniones de 1978, el Comité del Área de la Estación de Forest Hills ha enfocado su atención sobre el diseño de la nueva estación. En la reunión del 12 de enero, en la que se discutieron la circulación, el estacionamiento y el uso del terreno; los residentes indicaron su oposición a la expansión del garage.



In the South End's Ellis Neighborhood:

NOISE CONTROL

"Living next to the tracks" has usually been synonymous with living next to a loud nuisance. Conversations stop in midair, resuming after the trains have passed.

But it has always been clear that the Southwest Corridor will not be that way. Control and abatement of noise has been a commitment of the MBTA and other government agencies since the Corridor was planned. The depressed right-of-way design, with decks and acoustic canopies added near dense residential neighborhoods was selected largely to control noise. Bolt, Beranek and Newman "BBN", a well-known firm of acoustic consultants, has been retained to control noise and vibration. Active and sophisticated community residents have monitored the entire process of design. In the end, the area near the Corridor will be quieter than it is today, despite increased rail traffic.

The area that contains the tracks between Back Bay Station and Berkeley Street in Section I presents a unique problem in noise control. Located adjacent to the densely populated Ellis Neighborhood, the tracks will not be decked over in this area because of the dominance of the Mass Turnpike. Instead, the Environmental Impact Statement proposed a series of canopies designed in such a way as to abate the noise reaching the neighborhood, not only

from the new trains, but also to the extent possible, from the existing turnpike traffic.

In order to design the most effective configuration of canopies and walls for sound attenuation, BBN built a 1/40th scale model of the area between Columbus Avenue and Berkeley Street. Made of plywood with hard surfaces to simulate site surface conditions, the model allows sound sources to be changed to different locations, and design shapes for the canopies and barrier walls to be tested.

The major noise sources are trains, especially diesel locomotive hauled trains, and the Massachusetts Turnpike. Because of the many sound-reflecting surfaces, it would not have been possible to predict the noise reduction effectiveness by theoretical analysis. So, the analysis is being performed by using a scale acoustic model which allows the tester to judge all the sound reflecting surfaces.

The scale model is 1/40th full size. Therefore, the wavelengths of sound used in the model must also be 1/40th of full size. This means that the frequency of the sound must be 40 times as high as it is for full scale locomotives, rapid transit cars, automobiles and trucks. To record this high frequency sound, a spark is set off and picked up on a small microphone located where the loudest

noise would reach the neighborhood, and displayed on the graphic scope of a narrow band frequency analyzer.

This analyzer determines the amount of sound energy at each frequency. The spark sound source is placed at the position of the trains or vehicles on the turnpike. The sound energy is first determined without the canopies. This experiment is then repeated with a configuration of the canopies in place, and the difference in the sound energy level is noted. This difference in sound energy is then used to determine the amount by which the trains and the turnpike will be quieted.

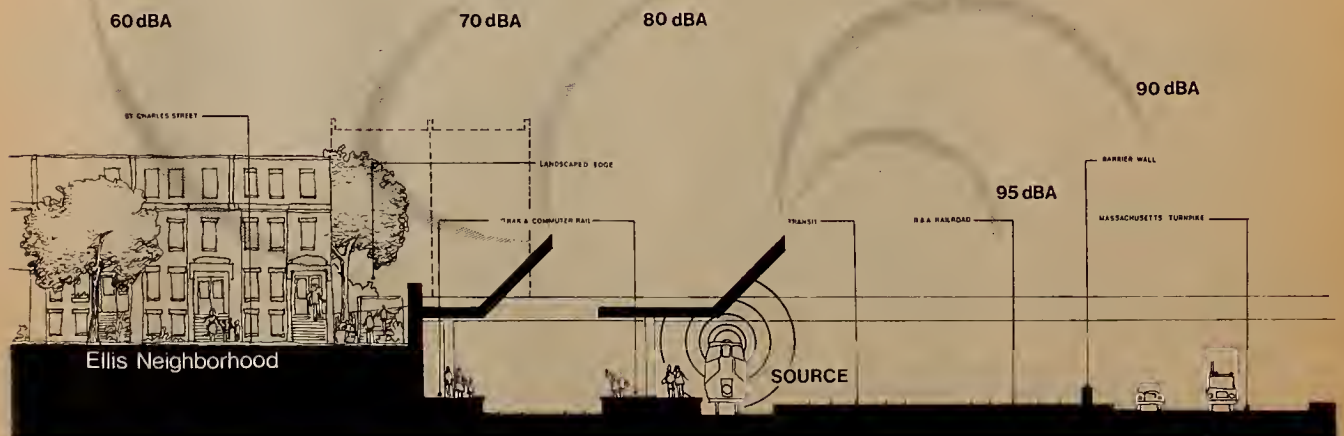
In general, the larger and higher the canopies are made the more noise reduction they will provide. The constraints on the size and shape of the canopies come from several other considerations including structural requirements for wind and snow loads, ventilation for the diesel locomotive

exhaust, visual appearance, and maintenance requirements. The goal of the model study is to develop a design for the canopies which will satisfy these constraints and still provide a substantial noise reduction.

Twelve different variations were tested with the acoustic model. Some of these had flat canopies, others had canopies of different lengths tilted at 30 and 45 angles. Some schemes were tested twice, both with and without a wall between the Mass. Pike and the tracks.

After the results of the tests were discussed by the consultants and the community, one alternative was selected for further study. This design, consisting of 19-ft canopies tilted at 45° angles with a small wall between the turnpike and the tracks is illustrated on this page. The design options selected yielded the following results:

| Source | Peak Noise Level With No Canopies | Peak Noise Levels With 4 Canopies |
|--|-----------------------------------|-----------------------------------|
| 1. Two closest AMTRAK/Commuter rail tracks | 88-93 dBA | 68-73 dBA |
| 2. Far AMTRAK/Commuter rail track | 84-90 dBA | 64-70 dBA |
| 3. Orange Line | 76-80 dBA | 60-64 dBA |
| 4. B&A tracks | 82-87 dBA | 72-77 dBA |
| 5. Mass Pike | 80-85 dBA | 72-76 dBA |



controlled noise contours

This cross section of the Southwest Corridor near the Ellis Neighborhood shows the effectiveness of the acoustic canopies in controlling the noise problem; the sound waves are bent by the canopies until a much lower level of noise reaches the neighborhood. In the example shown, the noise is produced by an AMTRAK diesel locomotive and recorded in the top floor window closest to the tracks on St. Charles St. The noise is reduced by 20 dB (see example 2 above). Contours are approximate.



Left to right: 1) Overview of acoustic model. 2) microphone used to measure sound. 3) Community residents and consultants discuss the model. 4) Electronic sound source simulator.



BBN plans to test further design variation and moving noise sources on this scheme, and will estimate the equivalent sound level (the average noise) before presenting the discussion to the SATF for further discussion.

In addition to the model study, BBN is also providing acoustic consulting services for the remainder of the SW Corridor Project. The type of problems being addressed include: local noise and vibration attenuation, station acoustics, ventilation shaft and fan noise, ground vibration problems, and construction noise.

Local noise problems will be addressed on a case-by-case basis.

In the area of station acoustics, BBN will advise the station architects as to the proper use of sound-absorbing material in order to ensure a comfortable acoustic environment and will also specify the requirements for the public address systems, as well as noise control measures for mechanical equipment.

Ventilation shaft and fan noise problems will be minimized by locating these facilities where they will cause minimal annoyance, and by geometrically designing them to direct the noise away from nearby receivers. The maximum noise level of the fans will be specified and mufflers and sound absorbing material will be used as necessary.

Welded rail and resilient rail fasteners will be used to minimize ground-borne noise and vibration. Special vibration isolation techniques may be used at critical locations to further control it. Plans will be developed to control noise levels during construction. These plans will be based upon the Boston Noise Regulations and will probably include limits on the noise levels of various types of equipment as well as limits on the hours of operation.

How the noise environment is measured

Noise is measured in decibels (abbreviated dB). Decibels are derived mathematically from the fluctuating pressure caused by sound waves. In measuring the noise environment of an urban area, three different scales are used:

- Maximum sound level (L_{max}) measures the loudness of a single event, such as one truck on the turnpike.
- Equivalent sound level (L_{eq}) measures the average sound over a period of time.
- Day-night sound level (L_{dn}) measures the average sound over a 24-hour period with a 10 dB penalty for

night hours.

All three scales are "A-weighted". The name is derived from an electronic filter called an "A-filter" used to approximate the sound perception of the human ear, which is less sensitive to very low frequency and very high frequency sound than it is to medium-range frequencies.

Rules of Thumb

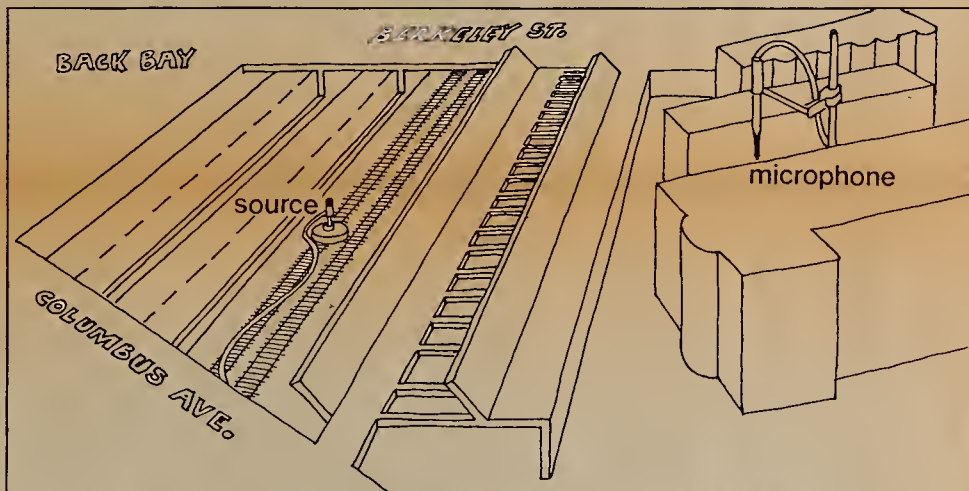
- A change of one decibel is usually detectable only under laboratory conditions.
- A change of three decibels is detectable in

the field. For example, if the difference in noise level of two successive trucks or trains is 3 dB or more, this would be noticeable.

- An increase (decrease) of ten decibels is usually considered a subjective doubling (halving) of the sound level, and such a change is significant.

NOISE CRITERION

The Noise Criterion for the Southwest Corridor is that the loudest hour sound equivalent level (L_{eq}) not exceed 67 dBA in any residential neighborhood.



Above: an illustration of the acoustic model used to design the canopies.

Resumen en español

"Vivir al lado del tren" ha sido sinónimo a vivir al lado de una molestia ruidosa. Las conversaciones siempre están pausando en el aire, para resumir sólo cuando pasan los trenes.

Pero siempre ha estado claro que el Corredor del Suroeste no será así. El MBTA y otras agencias gubernamentales se han comprometido a controlar el ruido desde que se comenzó a planificar el corredor. El diseño de una trinchera para las vías, con cubiertas y pabellones acústicos cuando la ruta pasa por áreas residenciales,

se escogió principalmente para reducir el ruido. La oficina de Bolt Beranek and Newman, BBN, la conocida firma de asesores acústicos, fué contratada para estudiar el problema del ruido y las vibraciones. Los residentes de las comunidades del Corredor, con un alto grado de activismo y satisfacción, han seguido de cerca el proceso de diseño. Al final, el área cerca del corredor será más tranquila de lo que es hoy, a pesar de un aumento en el tráfico de trenes.

Para diseñar la combinación más efectiva de pabellones, paredes, etc., BBN ha

construido una magueta a 1/40' de la escala real, construida de Plywood con una superficie dura para simular el terreno real, la maqueta es además flexible, de manera que la fuente de sonido se puede colocar en distintos lugares (simulando el ruido de trenes, de camiones, etc.) y los pabellones se pueden intercambiar para hacer pruebas con distintos diseños.

Después de discutidos los resultados de los experimentos por parte de los asesores técnicos y de la comunidad, se seleccionó una alternativa para un estudio más profundo.

Hyde Park

Hyde Park's Summer Street Elderly Housing Project will soon become a reality, according to Michael Comperchio, Chairman of the Hyde Park I-95 Land Use Committee. The Boston Board of Zoning Appeals has just approved ne-

cessary application for the 104 units of elderly housing. This housing has been planned since 1973 by the Hyde Park community and the Southwest Corridor Development Coordinator on land taken for the now defunct Southwest Expressway.

This means, said Comperchio, that the

units, designed for the Boston Housing Authority by the architectural firm of Goody, Clancy and Associates, with funding from the State Department of Community Affairs, can be under construction in 1978 and ready for occupancy in 1979.

Secretary of the I-95 Land Use Committee,

Marilyn Mercer Schneider, praised the efforts of Hyde Park residents and city and state agencies, all of whom have planned cooperatively for 5 years to make this housing possible. Anyone wishing to see plans for the proposed housing can call the Southwest Corridor Development Office at 722-5834.

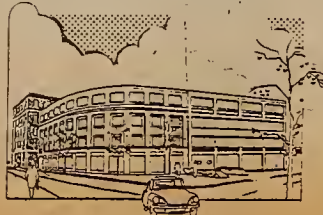
\$2.2 M to SWC Industrial Park



The Community Development Corporation of Boston, Inc., a Roxbury-based, non-profit development corporation, has received a \$2.2 million grant for public improvements in the Southwest Corridor. The funds, granted by the Economic Development Administration, a branch of the U.S. Department of Commerce, will be used to rehabilitate the Old Baltimore Brush Building and to improve the site for the new Digital Corporation facility in the Cross-town Industrial Park.

Part of the grant, approximately \$700,000, will be used for site preparations for the Digital Corporation facility.

Coordinated through the Economic Development and Industrial Commission, improvements will include street closings and relocations, utility relocations, as well as side-



walks, lighting, etc.

Approximately \$1.5 million will go directly to the CDC of Boston for the conversion of the Baltimore Brush Building into modern,

multi-story manufacturing and office space. It will be used as an "incubator" of small and/or minority-owned businesses, indicating the use of space by fledgling firms until such time as they are economically operative. The subsidy covers 80% of the total cost of rehabilitation of the facility which will allow the space to be rented below market rates.

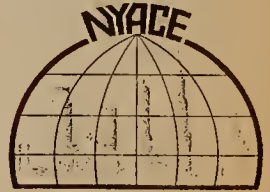
Negotiations are underway with several firms currently located within the Boston metropolitan area in order to attract and select tenants for the building. It is projected that the building will provide 50,000 sq.ft. of usable space once the rehabilitation is finished and have the potential to house 150 jobs. Construction is expected to begin in the early fall of 1978.

For more information, contact Marvin Gilmore, General Manager, CDC of Boston, Inc., 25 Ruggles Street, Roxbury, Mass. 02119 (617-442-2114).

M. S. P Award

The architectural firm of John G. Parrillo, Inc. has received an award for the design of Roslyn Apartments on Corridor land. The Mass. Society of Paraplegics honored the example of excellent design for the handicapped.

E.I.A. Award



The New York Association of Consulting Engineers, NTACE, granted its 1978 first prize for Engineering Excellence to F.R. Harris, Inc., for its work on the Corridor Environmental Impact Analysis. Peter Mazza, Senior Vice-President, received the award on behalf of the firm's Boston office, at an April 15 ceremony held at the Plaza Hotel in New York City.

Interview with Back Bay SATF Moderator Susan Stine

Professionally, Susan is a governmental policy researcher working mainly in the areas of state and local finances at the Massachusetts Taxpayers Foundation, Inc. Previously she worked for a legislature and a large city in another state on similar issues. She has lived on Appleton Street for two years and is active with the Ellis Neighborhood Association.

Q. What are the most important concerns of your neighbors regarding the Corridor Project?

A. There are several important concerns to the areas closest to what will be the third largest station in the Southwest Corridor. First, we want

to make sure that the residential character of the neighborhood is not adversely affected by the Project; second, we want assurances that the traffic -- both vehicular and pedestrian -- engendered by the Project will be controlled and will not be excessive; third, we want guarantees that the noise and vibrations from the trains will be reduced below present levels; fourth, we're interested in the new and improved services that will become available, and in the replacement service for the present Orange Line; and finally, we want a functional and esthetically pleasing station.

Q. What will be the major impact of the Corridor Project on your neighborhood?

A. The overall effect of the Project should be to increase the desirability

of the nearby South End neighborhoods and the Copley Square area as places to live and work. The jobs and other types of economic stimulation -- both from construction of the Project and afterward -- should greatly help the further revitalization of the area.

Q. How do you plan to encourage wider participation on your SATF?

A. Residents and businesses in the area have been encouraged to become involved through neighborhood meetings, mailings and Project meetings. This must be continued. Also, our Section Planner has been very conscientious and effective in making sure area interests are represented.

Q. Any specific message you would like to send to your neighbors through the

Corridor News?

A. Quite a few people are taking the time to assist in the planning of this Project. Your concerns and perspectives are being sought now. If you decide not to participate now, don't plan to criticize the outcome later.

Q. Any other important subject you would like to mention?

A. There is a great need for Back Bay Station to be coordinated with other major proposed developments in the immediate area -- Copley Square development, Tent City, the BRA's plans (especially for parcel #10). There seems to be a reluctance of any one agency to take over leadership in the total planning of development in the Copley Square area. Coordination is essential to ensure that the area is not hurt.